One strain showed negative result in the PCR amplification. This also indicates the presence of *ica* independent mechanism for biofilm formation.

Chapter 10

Summary and conclusion

Studies on CNS revealed that *S.epidermidis* was the most predominant species isolated from human isolates. CNS isolated from humans and animals have virulence factors and might have an important role in the pathogenesis of infections. CNS isolated from clinical samples showed highest level of antimicrobial resistance. Salicylic acid (SAL) and N-acetyl cysteine (NAC) were found to be preventing the formation of biofilms and adherence of *S.epidermidis* to catheters and other indwelling medical devices. Studies on evaluation of catheters revealed that rifampicin impregnation is an effective procedure conferring antimicrobial protection against CNS. The PCR amplification of *ica*AB and *mec*A genes in *S.epidermidis* isolated from clinical samples confirmed the presence of genes for biofilm formation and methicillin resistance. The presence and expression of genes such as *ica*AB and *mec*A may help in clarifying the relevance of pathogenesis of infection caused by CNS especially the nosocomial infections. It could also be of value in the development of new preventive and therapeutic measures.

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